DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-006585 Address: 333 Burma Road **Date Inspected:** 21-Apr-2009

City: Oakland, CA 94607

OSM Arrival Time: 1845 **Project Name:** SAS Superstructure **OSM Departure Time:** 645 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Chen Xi **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG** and Tower

Summary of Items Observed:

Summary of Items Observed: On this date Caltrans OSM Quality Assurance (QA) Inspector, Larry Viars was present during the times noted above for observations relative to the work being performed.

Bay 10-

This QA inspector received NDT Inspection Notification Sheet 002739 for Quality Assurance verification of Visual Testing (VT), Magnetic Particle Testing (MT) of South Tower Lift 2 Skin C to B corner weld joint, SSD1-TL5B/L-3B. QA performed Visual inspection and found an area that appeared to be a transverse crack between the 56 and 59 meter diaphragms. Caltrans QA verfified the crack with Magnetic particle testing and found on more transverse crack within the 56 and and 59 meter diaphragms. ZPMC QC stated that MT was not performed in this area as the requirement for this weld is 25% of the weld length. Please see the attached photos below of the above mentioned Tower crack. An incident report was issued for on this date the transverse cracks found.

Bay 3-

This QA Inspector observed the following work in progress: SAW welding of weld joint 026 located on OBG Floor Beam FB016-044. ZPMC welder was identified as 044780. ZPMC QC is identified as Chen Xi. The welding appeared to be in conformance with welding procedure specification, WPS-B-T-2221-B-LsC-S-2.

OBG outside repair area (west of bay 19)-



WELDING INSPECTION REPORT

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This QA Inspector performed Phased Array Ultrasonic Testing (PAUT) of OBG deck panel u-rib Partial Joint Penetration (PJP) welds at tack weld locations. Caltrans NDT personnel performed conventional ultransonic testing of tack welds. Tack weld locations that exhibited crack like indications in the area of interest were marked and recorded prior to PAUT. PAUT was performed in accordance with Caltrans UT procedure "Phased Array Testing for detection of planar discontinuites (cracks) in PJP welds. Results of Deck Panels evaluated are as follows:

DP536-001 (8CW): 30 locations tested with 8 locations rejected.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





Summary of Conversations:

As identified within the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod, 134 8257 0045, who represents the Office of Structural Materials for your project.

Inspected By:	Viars,Larry	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer